

R E M A R K S

Claims 15-19 are pending in this application, and stand rejected under 35 U.S.C. §103(a) as unpatentable over Applicants' disclosure of the prior art, (Fig. 15 and pages 3-4 of the instant specification), or Aida et al., when taken with Heidemann, (U.S. Patent No. 5,335,109).

Applicants respectfully disagree with this rejection.

The Examiner has stated that Aida et al. discloses signal input splitting and mounting so as to control pump power (in Fig. 1A), i.e., the same structure as claimed, except for the filter. But, in Fig. 1A of Aida, an excitation light source (Pump LDs) is provided at the input side (upstream) of the optical amplifier. This is a definitive difference from the claims which indicate that an excitation light is located at the output side (downstream) of the optical fiber amplifier.

Aida et al., in the words of the Examiner, discloses "signal input splitting and mounting so as to control pump power (see, *inter alia*, Fig. 1A)", (Office Action, page 3, lines 16-17), and, thus is not directed towards determining the level of the optical input, as is the invention claimed herein.

As for Heidemann, the Examiner has stated that Heidemann teaches the use of optical filters positioned downstream and upstream of an optical amplifier to block pump radiation having passed through the amplifier. But Heidemann fails to teach that an input light not yet amplified is filtered out from the pump radiation, which has passed through the amplifier, to detect a level of the input light.

Moreover, Heidemann is directed towards greater control over the level of an electrical output signal produced by an optical to electric transducer. The use of filters

upstream and downstream from the optical amplifier aid in achieving the greater control over electrical output since they absorb extraneous pump light from a pump source 4 that controls the gain of the erbium-doped optical fiber amplifier 3. In contrast, the optical filter claimed herein is not directed towards gaining greater control over the optical and hence electrical output, but rather the optical filter claimed herein is directed towards ascertaining the level of the optical input.

In the present invention, an input level of an input light is detected before passing through an optical amplifier, so that an accurate level of the input light is obtained, but Heidemann is silent as to this point.

Accordingly, even if Aida et al. and Heidemann are combined, the unique configuration of the present invention cannot be obtained.

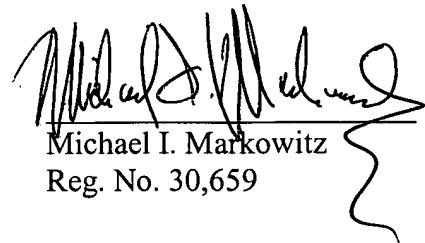
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An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 15-21 are in condition for allowance. Passage of this case to allowance is earnestly solicited.

However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper, not fully covered by an enclosed check, may be charged on Deposit Account 50-1290.

Respectfully submitted,



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